Installation Guide

RE-DM6 Radia Eclipse 6-Channel Dimmer Module (120 or 240 volts)

Overview

The RE-DM6 RADIA Eclipse 6-Channel Integrated Dimmer Module (120V: **FG706-03**; 240V: **FG706-04**) controls up to six circuits with six 1200-watt onboard dimmers (FIG. 1). The RE-DM6 is designed for use with the RDA series of enclosures, in an AMX Lighting™ modular digital dimming system. The RE-DM6 is controlled by AXLink or by dry (contact) closures.

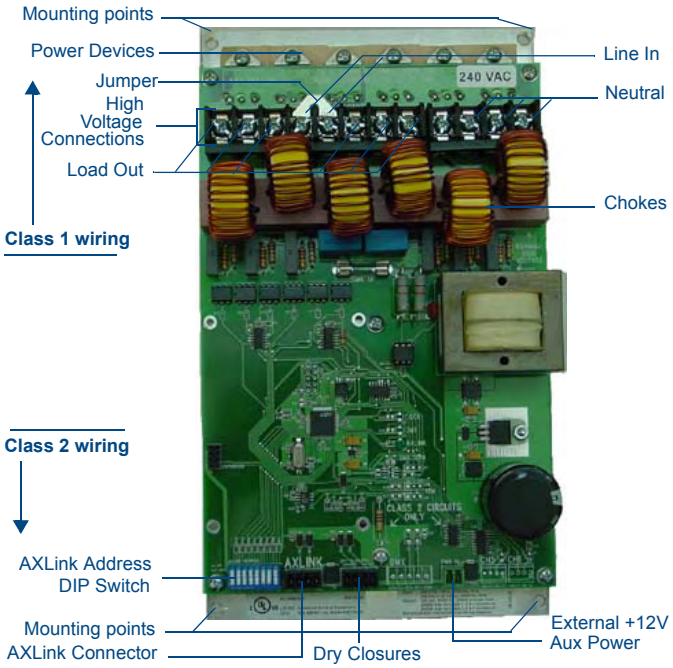


FIG. 1 RE-DM6 6-channel Integrated Dimmer Module

Specifications

RE-DM6 Specifications	
Dimensions (HW):	5.75" x 10.0" (146.05 mm x 254.00 mm)
Weight:	4.5 lbs (2.04 kg)
Line input:	• 120, 240 VAC, single phase, 2W+G, 50/60 Hz, 2400 W, one feed • 120, 120/240, 240 VAC, single phase, 3W+G, 50/60 Hz, 4800 W, dual feed
Output:	• 1200 W max. per channel @120, 240 VAC • 2400 W max. total, all 6 channels on with single 2400 W feed • 4800 W max. total, all 6 channels on with dual 2400 W feeds • Line input #1 goes to dimmer 1, 3, and 5; line input #2 goes to dimmer 2, 4 and 6 • All electrical ratings are for continuous duty
Wire rating:	Use only copper wires rated at 75°C (167°F) min.
Torque terminals:	To 20 in-lbs (2.3 N/M)
Maximum wire size:	10 AWG (4 mm²)
Wire stripping length:	0.5" (13 mm)
AXLink Port:	4-pin 3.5mm green captive wire connector - AXLink communication signaling with 12VDC power in.
Aux Power:	2-pin 3.5mm green captive wire connector. This is a 12VDC power input that supplies additional power to the Radia PCB and connected Radia modules.
Dry Contacts:	• Emergency fire alarm relay connection - Closed relay activates preset 126. Other control is locked out until relay opens. Supports daisy chaining of up to 20 dimmers for this connection, with a maximum current requirement of 200mA when daisy-chained. • Failsafe connection - Works with a toggle switch - opening the switch triggers preset 128, closing the switch triggers preset 127. Supports daisy chaining of up to 20 dimmers for this connection with a maximum current requirement of 200mA when daisy-chained.
BTU/hr:	300 single feed (2400 W); 600 dual feed (4800 W)

RE-DM6 Specifications (Cont.)	
Idle current draw:	75 mA @ 120 VAC, 50 mA @ 240 VAC, 100 mA @ 13.5 VDC
Certifications:	• FCC • CE • UL North America • IEC-60950 Safety
Operating Temp Range:	0° to 40°C (32° to 104°F)
Included Accessories:	• 2 4-pin captive 3.5mm wire connectors (**41-5047**) • 4 #8-32x1/2" F-point mounting screws
Required Enclosures:	• RDA-ENC2 (**FG606-10**) • RDA-ENC4 (**FG606-11**) • RDA-ENC6/6B (**FG606-12/13/15**) • RDA-ENC12B (**FG606-14/16**)

Suggested Installation Loads

Dimmed	Switched
Incandescent	Motors
Neon, cold-cathode	Fans

Caution: Pre-Installation Notes

***WARNING**: This unit should be installed only by qualified electrical personnel, and in compliance with all national electrical codes, local codes and ordinances. To prevent possible personal injury or death, disconnect power to the enclosure **at the breaker box** before attempting to work with any AMX Lighting modules.*

- All Class 1 and 2 wiring must be connected to their dedicated terminals.
- Class 1 wiring should be connected through the top of the enclosure, and Class 2 wiring through the bottom.
- Load conductors must be same size as line conductors, regardless of connected load.
- Disconnect power while installing or connecting the unit.
- Keep top and bottom air vents clear at all times, and maintain 12" (30.48 cm) clearance around the top and bottom.
- Test loads for shorts before connecting.
- Class 2 wiring must be rated 300V or higher.
- For indoor use only.
- AC lighting loads only.
- For more information, refer to the RE-DM6 instruction manual available at **www.amx.com**.

Radia Lighting System Configuration Pages

The AMX Radia Web pages provide a simple interface for users of the Radia Duet module. The web pages reside on the AMX master when running the Radia Duet module and may be accessed through Internet Explorer or Mozilla Firefox. The RE-DM6 may also be configured using NetLinx code or a terminal. For more information, refer to the RE-DM6 instruction manual available at **www.amx.com**.

High-Voltage Connections

Each AMX Lighting module has its high-voltage connectors marked on its circuit board. Line, load, and neutrals are also clearly marked.

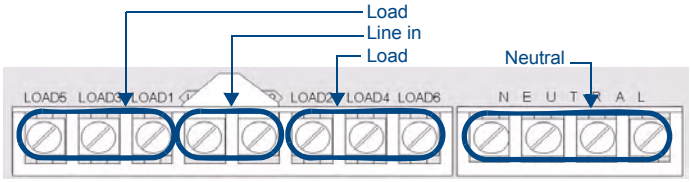
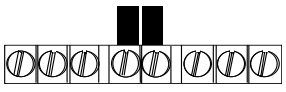


FIG. 2 High-voltage connections

Line-in Connections

- Using two feeds for Line 1 and Line 2 provides two 2400 W inputs.
- Jumping Line 1 and Line 2 provides a single 2400 W input (FIG. 3).



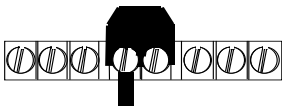


FIG. 3 Line-in Connections

Low-Voltage Connections

The low-voltage area in the AMX Lighting controllers contain connections and DIP switches for AXLink and dry closures. On the controller cards, low-voltage power for the board is supplied either by line power, optional auxiliary power supply (RDA-PSM), or the +12 VDC pin on the AXLink connector.

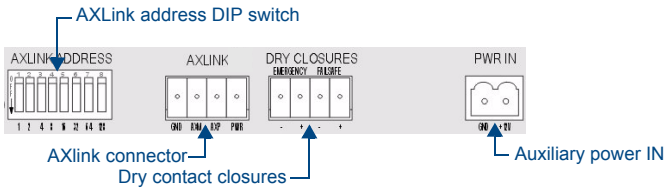


FIG. 4 Low-voltage connections and DIP switches

***WARNING**: Disconnect the main power to the AMX Lighting controller **at the breaker box** before rewiring the low voltage connections.*

Setting AXlink Address Numbers

Set the AXLink address number (1-255) for the RE-DM6. This number must match the number in your Axcess program.

***Note:** By turning all switches off, all circuits will go to 100 percent so that the installer can test the high-voltage connections without having connections to a control system.*

Connecting AXlink

Connect the 4-pin captive-wire AXlink connector from the RE-DM6 to the Central Controller for AXlink control of the dimming system (FIG. 5).

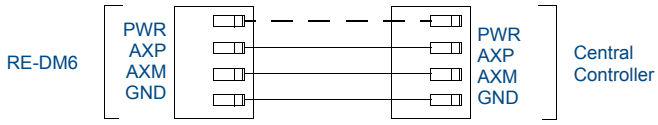


FIG. 5 Connecting AXlink

Dry Closure Connections

Dry contact closures from other equipment can be connected to the Radia Eclipse dimmer module to provide direct manual control of lighting loads (FIG. 6).

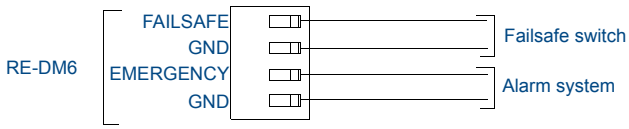


FIG. 6 Dry Closure Connections

Each dry contact closure has two pins: ground and contact. To activate each dry closure, connect the ground and contact.

Lighting Application Drawings

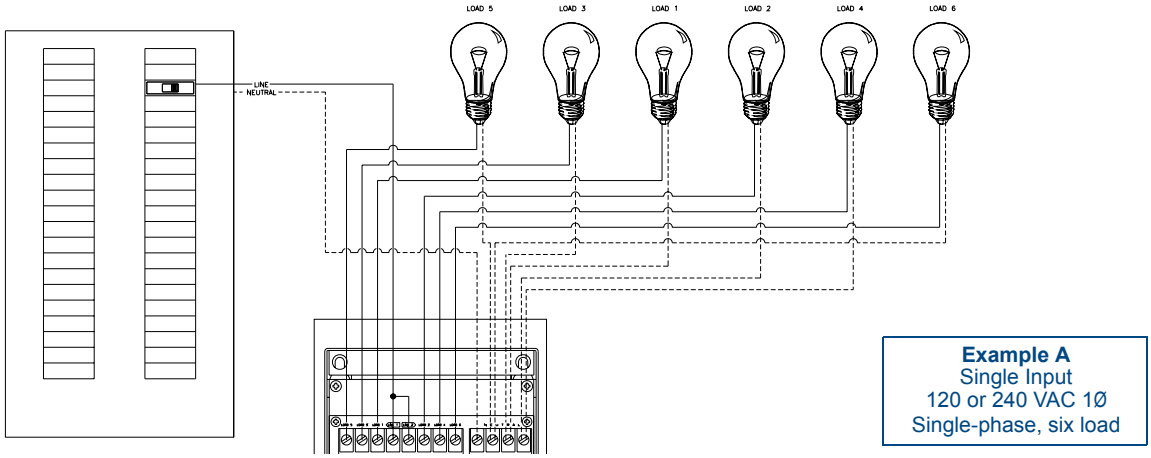


FIG. 7 Example A

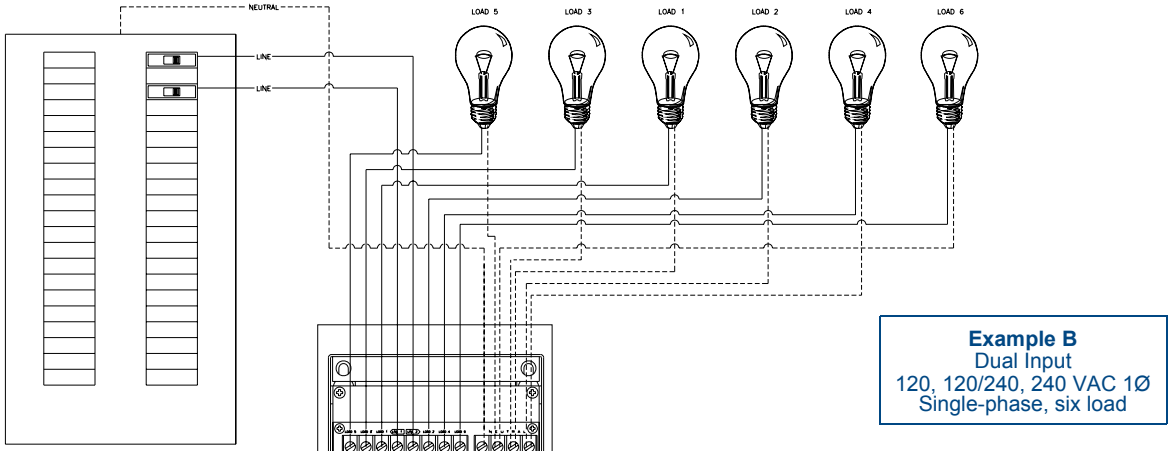


FIG. 8 Example B

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